

Remarks:

Reconsideration of the application is requested.

Claims 1-24 remain in the application. Claims 1, 3, 7, and 10-11 have been amended. Claims 12-24 have been withdrawn from consideration.

Enclosed is a copy of the cover page of WO 90/13736 which corresponds to EP 0 470 113 cited in the IDS. No corresponding English language documents has been found for the other references cited in the IDS.

In item 7 on page 3 of the above-identified Office action, claims 1-11 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph. The Examiner's comments have been considered and the appropriate corrections have been made to the claims. It is noted that the term "jacket surface" is widely accepted as meaning an outer surface and does not require the presence of a jacket.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph. Should the Examiner find any further objectionable items, Counsel would appreciate a telephone call during which the matter may be resolved. The above-noted changes to the claims are provided

solely for the purpose of satisfying formal requirements or are made solely for cosmetic reasons to clarify the claims. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claims for any reason related to the statutory requirements for a patent.

In item 9 on page 3 of the Office action, claims 1-4, 6, and 9-11 have been rejected as being anticipated by *Bestenreiner* (WO 94/18441) under 35 U.S.C. § 102.

In item 15 on page 8 of the Office action, claims 1-4, 6, and 9-11 have been rejected as being obvious over Garcea (US 4,086,063) in view of *Bestenreiner* or *Cyron et al.* under 35 U.S.C. § 103.

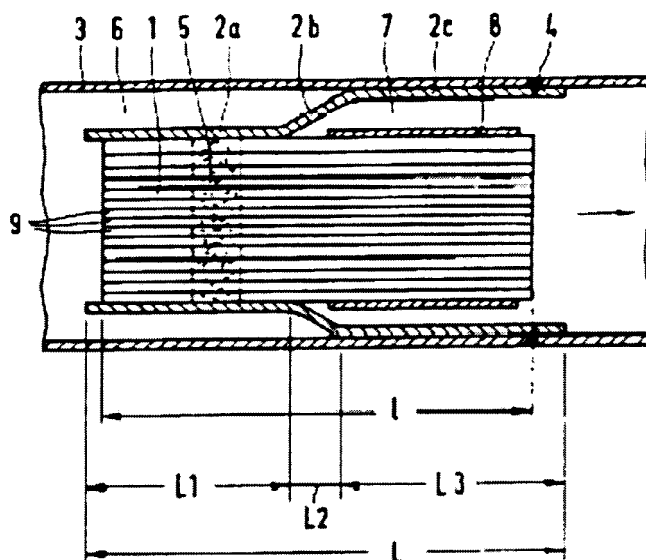
Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 as amended calls for, inter alia:

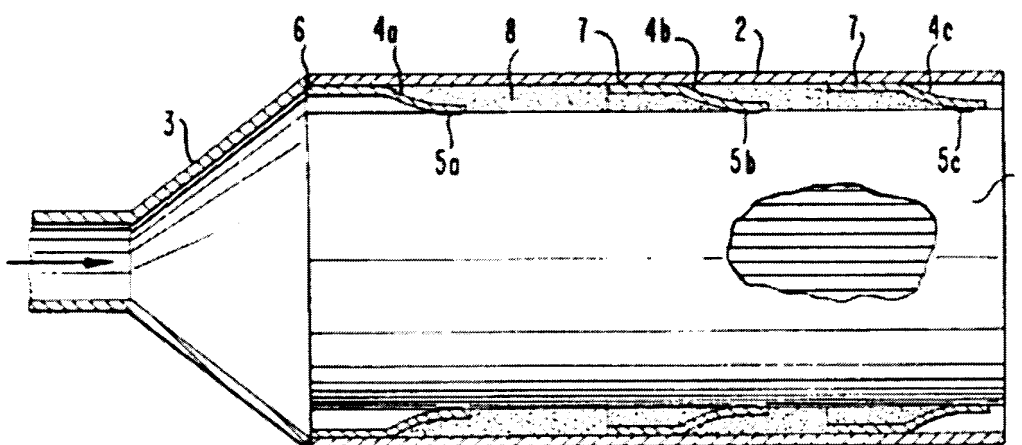
a metallic catalyst carrier body without a tubular jacket for installation in an exhaust pipe casing, said catalyst carrier body having a longitudinal axis, an interior with a plurality of flow paths and an outer surface; and

at least one substantially **plate-shaped** retaining element to be fastened in said exhaust pipe casing, said **retaining element extending in a plane**, said plane **including an angle** with said longitudinal axis of said catalyst carrier body, said retaining element having an opening formed therein and a protrusion for receiving and securing said catalyst carrier body, said protrusion surrounding only a part of said outer surface of said catalyst carrier body, said retaining element fastened directly on said catalyst carrier body, and said retaining element at least one of holding said catalyst carrier body together in a dimensionally stable state and substantially supporting said catalyst carrier body on its own.

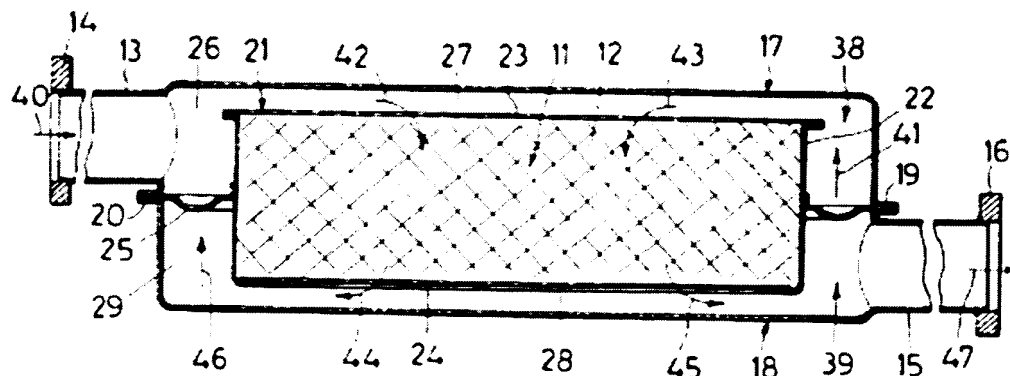
The metallic honeycomb structure of *Bestenreiner* is reproduced below:



The carrier body of Cyron et al. is reproduced below:



The muffler of Garcea is reproduced below:



Clearly, neither *Bestenreiner*, *Cyron et al.*, nor *Garcea* show a substantially **plate-shaped** retaining element **extending in a plane including an angle** with the longitudinal axis of a **catalyst carrier body**, as recited in claim 1 of the instant application. Therefore, the invention as recited in claim 1 of the instant application is believed not to be anticipated by *Bestenreiner* or *Cyron et al.*, nor obvious over *Garcea* in view of *Bestenreiner* or *Cyron et al.*.

It is accordingly believed to be clear that neither *Bestenreiner* nor *Cyron et al.* show the features of claim 1, and that *Garcea* in view of *Bestenreiner* or *Cyron et al.* do not suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and because claims 2-11 are ultimately dependent on claim 1, they are believed to be patentable as well.

Considering the deficiencies of the primary references *Bestenreiner* and *Cyron et al.*, it is believed not to be necessary at this stage to address the secondary references applied in the rejection of the dependent claims in items 13 and 14 on pages 6 and 7 of the Office action, and whether or not there is sufficient suggestion or motivation with a reasonable expectation of success for modifying or combining the references as required by MPEP § 2143.

In view of the foregoing, reconsideration and allowance of claims 1-11 are solicited.

If an extension of time is required, petition for extension is herewith made.

Please charge any fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



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Version with markings to show changes made:

Claim 1 (amended). An assembly for cleaning exhaust gas, comprising:

a metallic catalyst carrier body without a tubular jacket for installation in an exhaust pipe casing, said catalyst carrier body having a longitudinal axis, an interior with a plurality of flow paths and [a jacket] an outer surface; and

at least one substantially plate-shaped retaining element to be fastened in said exhaust pipe casing, said retaining element extending in a plane, said plane including an angle with said longitudinal axis of said catalyst carrier body, said retaining element having an opening formed therein and a protrusion for receiving and securing said catalyst carrier body, said [retaining element having a] protrusion surrounding only a part of said [jacket] outer surface of said catalyst carrier body, said retaining element fastened directly on said catalyst carrier body, and said retaining element at least one of holding said catalyst carrier body together in a dimensionally stable state and substantially supporting said catalyst carrier body on its own.

Claim 3 (amended). The assembly according to claim 2, wherein [the] said exhaust pipe casing disposed within a muffler casing.

Claim 7 (amended). The assembly according to claim 5, wherein said elliptical opening has two [narrow] short sides and said protrusion includes a flanged subregion at each of said [narrow] short sides.

Claim 10 (amended). The assembly according to claim 1,  
wherein said catalyst carrier body is constructed  
substantially of at least partially structured layers of sheet  
metal being at least one of wound, laminated and intertwined  
with one another to form channels for [receiving a flow of  
exhaust gas] said plurality of flow paths.

Claim 11 (amended). The assembly according to claim 10,  
wherein said layers of sheet metal are coated with  
catalytically active material[, at least in subregions, before  
being at least one of wound, laminated and intertwined].



**PCT** WELTORGANISATION FÜR GEISTIGES EIGENTUM  
 INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE  
 INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)



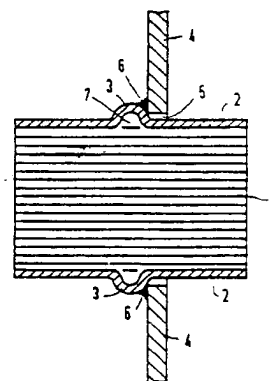
<b>(51) Internationale Patentklassifikation 5 :</b> <b>F01N 3/28, B01D 53/36</b>	<b>A1</b>	<b>(11) Internationale Veröffentlichungsnummer:</b> <b>WO 90/13736</b> <b>(43) Internationales Veröffentlichungsdatum:</b> 15. November 1990 (15.11.90)
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <b>(21) Internationales Aktenzeichen:</b> PCT/EP90/00624  <b>(22) Internationales Anmeldedatum:</b> 18. April 1990 (18.04.90)  <b>(30) Prioritätsdaten:</b>            G 89 05 415.6 U     28. April 1989 (28.04.89)     DE  <b>(71) Anmelder:</b> EMITEC GESELLSCHAFT FÜR EMIS-            SIONSTECHNOLOGIE MBH [DE/DE]; Hauptstraße            150, D-5204 Lohmar 1 (DE).  <b>(72) Erfinder:</b> WIERES, Ludwig ; Oppelner Str. 2, D-5063            Overath 1 (DE).  <b>(74) Anwalt:</b> FUCHS, Franz-Josef; Postfach 22 13 17, D-8000            München 22 (DE).         </div> <div style="width: 48%;"> <b>(81) Bestimmungsstaaten:</b> AT (europäisches Patent), BE (euro-            päisches Patent), BR, CH (europäisches Patent), DE (euro-            päisches Patent), DK (europäisches Patent), ES (euro-            päisches Patent), FR (europäisches Patent), GB (euro-            päisches Patent), IT (europäisches Patent), LU (europäi-            sches Patent), NL (europäisches Patent), SE (europäi-            sches Patent), SU.   <b>Veröffentlicht</b>  <i>Mit internationalem Recherchenbericht.</i> </div> </div>		

**(54) Title:** METALLIC CATALYST SUPPORT MOUNTED IN A SEPARATING WALL

**(54) Bezeichnung:** IN EINER TRENNWAND BEFESTIGTER METALLISCHER KATALYSATOR-TRÄGERKÖRPER

**(57) Abstract**

A metallic catalyst support (1) of honeycomb structure, through which a fluid can flow, is surrounded by a tubular sheath (2) and inserted in an opening (5) in a separating wall (4) approximately perpendicular to the direction of flow. The manufacture of this relatively compact type of support (1), which is used to purify the exhaust gases of small motors, can be simplified and its service life prolonged by providing the tubular sheath (2) of the catalyst support (1) with at least one peripheral bead (3). The tubular sheath (2) can thus be pushed into an opening (5) in a separating wall (4) until it is stopped by the bead (3). The cavity (7) formed by the bead (3) prevents damage to the catalyst support (1) if the outer region of the bead (3) is subsequently welded to the separating wall (4). Although heavy demands cannot be imposed on the manufacturing tolerances, a stable arrangement is obtained in which there are virtually no leaks between the separating wall (4) and the tubular casing (2), even when only spot welded (6).



**(57) Zusammenfassung**

Die vorliegende Erfindung betrifft einen von einem Fluid durchströmbaren, wabenförmigen metallischen Katalysator-Trägerkörper (1) mit einem diesen umgebenden Mantelrohr (2), eingesetzt in eine Öffnung (5) in einer etwa senkrecht zur Durchströmungsrichtung verlaufenden Trennwand (4). Beim Einsatz solcher Katalysator-Trägerkörper (1) mit relativ kleinem Volumen für die Abgasreinigung von Kleinmotoren wird der Fertigungsablauf vereinfacht und die Haltbarkeit verbessert, indem das Mantelrohr (2) des Katalysator-Trägerkörpers (1) mit mindestens einer umlaufenden Ausbördelung (3) versehen wird. Das Mantelrohr (2) kann dadurch bis zum Anschlag der Ausbördelung (3) in eine Öffnung (5) in einer Trennwand (4) eingeschoben werden. Eine anschließende Verschweißung des Außenbereiches der Ausbördelung (3) mit der Trennwand (4) kann den Katalysator-Trägerkörper (1) wegen des durch die Ausbördelung (3) gebildeten Hohlraumes (7) nicht beschädigen. Obwohl keine hohen Anforderungen an die Fertigungstoleranzen gestellt werden müssen, entsteht eine stabile Anordnung, die selbst bei nur punktförmigen Schweißungen (6) praktisch keine Undichtigkeiten zwischen Trennwand (4) und Mantelrohr (2) mehr aufweist.